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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DAILEY, THOMAS J

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/618,667	Applicant(s) LE LEANNEC ET AL.	
	Examiner Thomas J. Dailey	Art Unit 2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,8-10,12-21,23-26,29-36 and 45-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,8-10,12-21,23-26,29-36 and 45-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-4, 8-10, 12-21, 23-26, 29-36, and 45-50 are pending.

Response to Arguments

2. Applicant's arguments, see Remarks, filed 3/12/2010, with respect to the 35 USC 103(a) rejections of claims 1 and 23 have been fully considered and are persuasive. The rejections have been withdrawn.
3. Applicant's arguments with respect to the remaining prior art rejections of the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 39, 40, 43 and 44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
6. Claims 39 and 40 are directed to, "An information storage device readable by a computer microprocessor comprising code instructions of a computer program..."
The claim terminology is not explicitly defined by the specification and therefore,

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the claims may be directed to components involving signals encoded with functional descriptive material that do not fall within any of the categories of statutory subject matter as set forth in 35 U.S.C. 101.

The claims may be amended by changing "information storage device" to - "*non- transitory* information storage device" --, thus excluding that portion of the scope covering transitory signals. The scope of the disclosure given the state-of-the-art covers both transitory and non-transitory media, and this amendment would limit the claim to an eligible (non-transitory) embodiment

7. Claims 43 and 44 are directed to, "A computer program stored in a computer-readable medium..." The claim terminology (specifically, computer readable medium) is not explicitly defined by the specification and therefore, the claims may be directed to components involving signals encoded with functional descriptive material that do not fall within any of the categories of statutory subject matter as set forth in 35 U.S.C. 101.

The claim may be amended by changing "computer-readable medium" to - "*non- transitory* computer-readable medium" --, thus excluding that portion of the scope covering transitory signals. The scope of the disclosure given the state-of-the-art covers both transitory and non-transitory media, and this amendment would limit the claim to an eligible (non-transitory) embodiment

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 12-22, 29-36, 40, and 44-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US Pub. No. 2003/0018818), hereafter "Boliek," in view of Boucher et al (US Pat. 6,247,060), hereafter "Boucher," and what was well known in the art.

10. As to claim 12, Boliek discloses a method of processing compressed digital data received by a first communication apparatus connected through a communication network to a remote second communication apparatus, the method being implemented in the first communication apparatus, (Abstract), the method comprising the steps of:

receiving only a portion of a compressed digital signal present in the second apparatus and comprising a body that comprises data packets, the received portion of the compressed digital signal comprising at least one data packet ([0042], lines 5-12, client (first apparatus) requests an image (compressed digital signal) from a server(second apparatus); client receives and orders the codestream piecemeal, i.e. one received portion at a time, [0045]);

creating a derived compressed digital signal derived from the compressed digital signal present in the second apparatus in the form of a cache file, the derived compressed digital signal comprising header data and a body and capable of containing all or part of the body of the compressed digital signal present in the second apparatus ([0042], lines 5-12, client (first apparatus) requests an image (compressed digital signal) from a server(second apparatus); client receives and orders the codestream piecemeal, i.e. one received portion at a time, [0045], the memory it is stored in reads on a “cache”);

determining a position at which the at least one data packet of the received portion of the compressed digital signal is to be inserted into the body of the derived compressed digital signal ([0045], data packets are received from the server and inserted to create a correct JPEG 2000 codestream, this is done piecemeal, i.e. one received portion at a time)

the position being determined as a function of at least one pointer marker previously received and inserted into header data of the derived compressed digital signal by the first apparatus ([0052], once main header data, which includes markers is received, positions of every data packet and therefore their insertion point are known; [0059] further illustrates this process),

the at least one pointer marker providing information for calculating the length of the part of the body of the derived compressed digital signal preceding the at least one data packet of the received portion of the

compressed digital signal ([0052] and [0057] further illustrating this process) and

inserting into the body of the derived compressed digital signal said at least one data packet of the received portion of the compressed digital signal at the determined position ([0045]).

But, Boliek may not explicitly disclose filling the body of the derived compressed digital signal in the cache file with arbitrary data, so as to constitute a space of the same size as the body of the compressed digital signal present in the second apparatus.

However, Boucher discloses filling the body of the derived digital signal in the cache file with arbitrary data, so as to constitute a space of the same size as the body of the digital signal present in the second apparatus (column 27, lines 44-46 and lines 57-60; receiving client determines length of signal from the header and reserves (i.e. fills with arbitrary data) memory for the entire message (i.e. the body)).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boliek and Boucher in order to reserve space in the Boliek system so as to ensure the entire file would be able to be received.

Further, Boliek and Boucher may not explicitly disclose the position being determined as a function of the length of the header data. But, since Boliek does disclose pointer markers indicating the length and starting point of every packet in the codestream ([0052]), simply making the insertion position a function of the length of the header data is an obvious and unsubstantially modification of Boliek to one of ordinary skill in the art as the pointer markers can accomplish this alone.

11. As to claims 29, 40, and 44, they are rejected by the same rationale set forth in claim 12's rejection.

12. As to claim 14 and 31, Boliek discloses the compressed digital signal is partitioned into a number n of independently compressed regions $t_{sub.i}$, $i=1$ to n and $n \geq 1$, the body of the compressed digital signal comprising, for each region, region header data and a region body containing data packets of the region under consideration ([0033], tile-parts are the independently compressed regions and each tile-part has a header and body).

13. As to claims 15 and 32 Boliek discloses the length of the part of the body of the compressed digital signal preceding the data packet under consideration is determined from:

at least one pointer marker PLT providing information for calculating the length of the data packet or packets preceding the data packet under consideration in the region where this packet is located ([0052]),

the length of the header data of the region where the packet under consideration is located and, when one or more regions precede the region where the packet under consideration is located ([0052]).

at least one pointer marker TLM providing information for calculating particular the length of the preceding region or regions ([0052]).

14. As to claim 16, Boliek discloses the pointer marker TLM providing information for calculating the length of each region $t_{sub.i}$ is present in the header data ([0052] and [0060]).

15. As to claim 17, Boliek discloses the pointer marker PLT providing information for calculating the length of the data packets in a region $t_{sub.i}$ is present in the header data of the region concerned ([0052]) and [0061]).

16. As to claim 27, Boliek discloses extracting and transmitting to the first communication apparatus the at least one data packet having a position that has been determined ([0043]).

17. As to claim 13 and 30, Boliek discloses:

receiving the header data coming from the original compressed digital compressed digital signal present in the second apparatus, the received header data comprising at least one pointer marker TLM providing information for calculating the length of the body of the original compressed digital signal ([0033] and [0042], lines 5-12),

forming, from the received header data, the derived compressed digital compressed digital signal which thus comprises, as header data, the received header data and a compressed digital signal body of length equal to that of the body of the original compressed digital signal ([0045]), the body of the derived compressed digital signal representing a space initially filled with arbitrary data and which is intended to contain the data packet or packets received from the second apparatus ([0045]).

18. As to claims 18 and 33, Boliek discloses:

receiving region header data ([0033] and [0042], lines 5-12),;
determining a position at which the received region header data is to be inserted into the body of the derived compressed digital signal ([0033]), the position being determined according to the length of the header data of the derived compressed digital signal and, when one or more regions precede the region header data concerned, according to one or more pointer markers TLM received previously and providing respectively the length of the preceding region or regions ([0052]); and

inserting the received region header data at the determined position ([0045]).

19. As to claims 19 and 34, Boliek discloses the determination of the length of the part of the body of the derived compressed digital signal preceding the data packet under consideration comprises a preliminary step of determining the order of appearance of the data packet in the body of the compressed digital signal according to parameters relating to structure and organization of the data in the compressed digital signal ([0045], and [0052]).

20. As to claims 20 and 35, Boliek discloses:

extracting from the derived compressed digital signal the header data and data packets received ([0042]);

forming the header data of the valid compressed digital signal from the header data extracted from the derived compressed digital signal ([0050]);

concatenating the data packets extracted from the derived compressed digital signal in the body of the valid compressed digital signal ([0045]); and

when one or more data packets present in the body of the original compressed digital signal are not received by the first apparatus, concatenating respectively one or more empty packets in the body of the valid compressed digital signal in the same order of appearance as that adopted in the derived compressed digital signal ([0042]-[0043]).

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21. As to claims 21 and 36, Boliek discloses going through the data contained in the body of the derived compressed digital signal ([0042]);

converting, when the data gone through do not correspond to a data packet received from the second apparatus, the space filled by the data concerned into an empty packet ([0042]); and

shifting in an adapted manner the data comprising the remainder of the body of the derived compressed digital signal ([0050]).

22. As to claim 22, Boliek discloses the data received by the first apparatus comprises the reply to a request previously transmitted from the first apparatus to the second apparatus ([0042]).

23. As to claims 45 and 48, Boliek discloses a preliminary step of forming the derived compressed digital compressed digital signal which thus comprises the header data and a compressed digital signal body of length equal to that of the body of the original compressed digital signal ([0033]), the body of the derived compressed digital signal representing a space initially filled with arbitrary data and which is intended to contain the at least one data packet of the portion received from the second apparatus ([0045]).

24. As to claims 46, 47, 49, and 50, Boliek discloses the insertion into the body of the derived compressed digital signal of the at least one data packet leads to

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overwriting part of the space initially filled with arbitrary data ([0045], received data is integrated with previously buffered data to form a codestream, i.e. received data is written into the memory of the client device, replacing any arbitrary data that was there previously).

Allowable Subject Matter

25. Claims 1-10 and 23-27 are allowed.

26. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to disclose or suggest all limitations of the claimed invention with particular emphasis on determining whether or not at least one pointer marker, providing information for calculating the length of the part of the signal body preceding at least one data packet corresponding to the request, is absent in the header data via a test, and forming the at least one pointer marker in the compressed digital signal when the determining step determines that the at least one pointer marker providing information for calculating the length of the part of the signal body, is not present in the header data.

Conclusion

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is

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571-270-1246. The examiner can normally be reached on Monday thru Friday;
9:00am - 5:00pm.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on 571-272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. J. D./
Examiner, Art Unit 2452

/THU NGUYEN/
Supervisory Patent Examiner, Art Unit 2452